

REMARKS

This Amendment, submitted in response to the Office Action dated December 20, 2001, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration is respectfully requested.

The Examiner objected to the specification for containing informalities. Applicants have amended the specification to overcome the objection. Further, the Examiner has acknowledged Applicants' claim for foreign priority and indicated that all certified copies of the priority documents have been received.

Turning to substantive matters, claims 1-8 are pending in the application. Claims 1-8 have been rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended the claims to overcome this rejection. Further, claims 1-8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over David et al. (U.S. Patent No. 5,890,920) in view of Choi (U.S. Patent No. 5,740,012). Applicants submit the following arguments in traversal of the § 103(a) rejections.

THE CITED REFERENCE DO NOT DISCLOSE THE CLAIMED INVENTION

MPEP 2143.03 states, "To establish a prima facie case of obviousness of a claimed invention, *all the claim limitations must be taught or suggested by the prior art.*"

The combination of David and Choi does not teach or suggest a card connector comprising "a locking piece guide means for guiding the elastic locking piece during the card eject operation and the card insertion operation," as recited in claim 1. The Examiner contends that the locking piece guide means is disclosed in David by element 126. However, David discloses that element 126 is a cam that has a lateral projection 128 extending into the storage space to prevent a memory card inserted into the

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storage space from being withdrawn. See, column 5, lines 35-60. Accordingly, the element 126 does not function to guide an elastic locking piece during the card eject operation and the card insertion operation, as recited in claim 1. Instead, element 126 merely functions to prevent a memory card from being removed from a storage space.

Further, the Examiner contends that the elastic locking piece recited in claim 1 is disclosed in Choi by elements 21, 230, and 22. The Examiner also contends that the eject member recited in claim 1 is disclosed in David by element 48. Claim 1 recites that the elastic locking piece has a stationary portion *fixed* to the eject member. Therefore, assuming that it is proper to combine David and Choi, elements 21, 230, and 22 (i.e., the alleged elastic locking piece) would fix to element 48 (i.e., the alleged eject member). Based on this construction, it would be physically impossible for element 126 (i.e., the alleged locking piece guide) to guide elements 21, 230, and 22 (i.e., the alleged elastic locking piece) while fixed to element 48 (i.e., the alleged eject member). Therefore, the combination of David and Choi does not teach or suggest a card connector comprising "a locking piece guide means for guiding the elastic locking piece during the card eject operation and the card insertion operation," as recited in claim 1.

Still further, the combination of David and Choi does not teach or suggest a card connector wherein "the locking piece guide means causes the elastic locking piece to become elastically deformed during the card eject operation to move the locking portion away from the recess of the card," as recited in claim 1. As stated above, element 126 (i.e., the alleged locking piece guide means) merely functions to prevent a memory card from being removed from a storage space. David does not teach or suggest that element 126 causes an elastic locking piece to become elastically deformed during a

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card eject operation to move a locking portion away from a recess of a card, as recited in claim 1. Further, based on the claimed combination, it would be physically impossible for element 126 to cause elements 21, 230, and 22 (i.e., the alleged elastic locking piece) to become elastically deformed during a card eject operation to move a locking portion away from a recess of a card.

Similarly, the combination of David and Choi does not teach or suggest a card connector wherein "the locking piece guide means causes the elastic locking piece to become released from the elastic deformation during the card insertion operation thereby causing the elastic locking piece to move toward the card by an elastic recovery force to engage the locking portion in the recess of the card," as recited in claim 1.

Based on the above, the combination of David and Choi does not teach or suggest all of the limitations of claim 1. Therefore, the Examiner has not established a *prima facie* case of obviousness. Accordingly, claim 1 is patentable over David and Choi. Claims 2-8 are at least patentable based on their dependency from claim 1.

Regarding claim 2, the combination of David and Choi does not teach or suggest a card connector wherein the locking piece guide means has "a guide wall formed in the connector housing and having a tapered surface to guide the protruding portion as the eject member moves in the card insertion or eject direction," as recited in claim 2. The Examiner does not address the tapered surface element recited in claim 2 and in fact neither David, Choi, nor their combination teaches or suggests this feature. If the Examiner continues to maintain that this element is disclosed in David, Applicant respectfully request that the Examiner particularly point out where this element is disclosed so that Applicants may have the opportunity to reply completely. See, 37

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CFR 1.104 ("When a reference is complex . . . the particular part relied on must be designated as nearly as practicable."); MPEP 706 ("The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity.").

Further, claims 2 recites "a protruding portion projecting from the elastic locking piece." The Examiner contends that the protruding portion is disclosed in David by element 128. However, element 128 does not project from an elastic locking piece as recited in claim 2.

For these additional reasons, claim 2 is patentable over the cited references.

THERE IS NO MOTIVATION TO COMBINE THE CITED REFERENCES

MPEP 2143.01 states that obviousness can only be established by combining or modifying the teachings of the prior art where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Further, MPEP 2145 states that it is improper to combine references *where the references teach away* from their attempted combination. Still further, MPEP 2143.01 states, "If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP 2143.01 further states, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."

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David discloses that there is a need for an eject system that is adapted to being activated by a computer system, or alternatively, by manual control of an electrical current activated device. See, column 1, lines 44-47. Thus, David teaches away from manual ejection systems stating:

Such systems have disadvantages in that various users may exert inadequate force on the actuator bar to eject the card In any case, the amount of force applied will often vary from individual to individual so that the distance which the card is ejected beyond the frame may be expected to be generally disuniform. Further such mechanical systems may result in a card being ejected while the computer system is still accessing it. Additionally, a certain memory cards may contain sensitive information, and such manual ejection systems provide little or no security for such cards.

See, column 1, lines 32-43. David further discloses that there is a need for a system that maximizes the force available for ejecting the memory card. See, column 1, lines 47-49.

Conversely, Choi discloses that it is an object of the invention to provide a one-piece monolithic biased latch that responds to direct user opening of the latch to eject the modular unit from its bay. See, column 2, lines 26-30. See also, column 4, lines 34-45 and column 5, lines 35-40. Thus, Choi discloses a manual ejection system. Because David teaches away from manual ejection systems and Choi teaches a manual ejection system, it is improper to combine these references. MPEP 2145. Further, modifying David in view of Choi would render David unsatisfactory for its intended purpose. MPEP 2143.01. That is, the purpose of David is to provide an eject system that does not vary based on the amount of force applied by a user. See, column 1, lines 32-47 and column 4, lines 36-39. However, the manual eject system of Choi varies based on the amount of force applied by the user. Still further, modifying David

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in view of Choi would change the principle of operation of David. That is, the principle of operation of David is to eject a memory card by activation by a computer system, or alternatively, by an electrical current activated device. However, the principle of operation of Choi is to eject a modular unit from its bay by a one-piece monolithic biased latch that responds to *direct user opening* of the latch. Accordingly, the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP 2143.01.

Choi further discloses that "the user need only apply *limited pulling power* to the handle 211 to (sic) in order to give sufficient power to the separation projection 212 thus pushing away the CD-ROM drive 10." See, column 5, lines 45-50. Because David teaches *maximizing* the force available for ejecting a memory card and Choi teaches limiting the pulling power for ejecting a device, the references teach away from their combination. Accordingly, it is improper to combine these references. MPEP 2145.

Based on the above, there exists no motivation to combine David and Choi. Accordingly, claim 1 is patentable over these references. Claims 2-8 are at least patentable based on their dependency from claim 1.

APPLICANT'S AMENDMENTS DO NOT NECESSITATE NEW GROUNDS FOR REJECTION

Applicants have amended claim 1 to overcome the § 112, second paragraph rejection. The amendments to claim 1 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were earlier claimed. In particular, the features recited in the third paragraph of the original claim 1 were deleted and added to the fourth paragraph of claim 1 to overcome the § 112, second paragraph rejection.

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Accordingly, any new grounds of rejections will not be necessitated by Applicants' amendment to the claims, but instead by the arguments raised above. As such, if the Examiner raises any new grounds of rejections, the subsequent office action must be a non-final office action. See, MPEP 706.07(a).

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

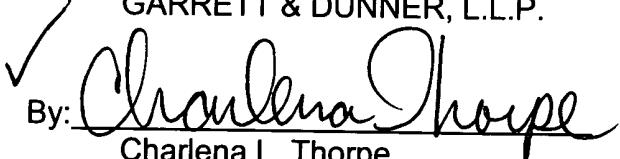
Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: May 3, 2002

By:


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace the heading at line 7 with the following:

SUMMARY OF THE INVENTION

IN THE CLAIMS:

Please amend claim 1, 3-5, and 8 as follows:

1. (Amended) A card connector for accepting a card, which has a recess in its side surface ~~and a plurality of contact pads on its bottom surface, and holding it in a connector housing so that the contact pads are in contact with contact terminals arranged in the connector housing,~~ the card connector comprising:

an eject mechanism having an eject member, the eject member being adapted to move in a card insertion direction as the card is inserted into the connector during a card insertion operation and to move in a card eject direction in response to a card eject operation to eject the card;

an elastic locking piece having a locking portion to engage in the recess of the card and a stationary portion fixed in the eject member, ~~the elastic locking piece being urged toward the card so that when the elastic locking piece is set free to move elastically by the urging force, the locking portion engages in the recess of the card;~~ and

a locking piece guide means for guiding the elastic locking piece during the card eject operation and the card insertion operation wherein the locking piece guide means to causes the elastic locking piece to become elastically deformed during the card eject operation it to move the locking portion away from the recess of the card during the card

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eject operation and wherein the locking piece guide means causes, during the card insertion operation, releasing the elastic locking piece to become released from the elastic deformation during the card insertion operation thereby causing the elastic locking piece to move toward the card by an elastic recovery force to engage the locking portion in the recess of the card.

3. (Amended) A card connector according to claim 2, wherein:

~~the locking piece guide means guides the protruding portion of the elastic locking piece is provided on thereby causing the locking portion to move away from the side surface of the card and towards a side wall portion of the connector housing during the card eject operation and to move toward the side surface of the card during the card insertion operation urged in a direction causing the locking portion to that presses against the side surface of the card;~~

the protruding portion of the elastic locking piece projects upwardly or downwardly of the connector housing; and

the tapered surface of the guide wall is inclined with respect to the side surface of the inserted card.

4. (Amended) A card connector according to claim 2, wherein:

~~locking piece guide means guides the protruding portion of the elastic locking piece is provided near the side wall portion of the connector housing and urged in a thereby causing the locking portion to move vertically away from the bottom or top surface of the card during the card eject operation and to move toward the bottom or top surface of the card during the card insertion operation direction that causing the locking portion to presses against the bottom surface or top surface of the card and;~~

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the protruding portion of the elastic locking piece projects widthways of the connector housing; and

wherein the tapered surface of the guide wall is inclined with respect to the bottom surface of the inserted card.

5. (Amended) A card connector according to claim 1, wherein the elastic locking piece is provided on the side wall portion of the connector housing so that it can be displaced widthways of the card, and wherein the locking piece guide means is a member projecting from the connector housing to engage a part of the elastic locking piece to thereby causing the locking portion to move away from the side surface of the card and towards a side wall portion of the connector housing during the card eject operation and to move toward the side surface of the card during the card insertion operation elastically deform the elastic locking piece during the card eject operation.

8. (Amended) A card connector according to any one of claims 2 to 4, wherein the connector housing is formed with a space that prevents the protruding portion from interfering with other members when a second card without the recess is inserted.

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